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United States Patent [19]**Hulbert****[11] Patent Number: 5,713,074****[45] Date of Patent: Jan. 27, 1998****[54] MOBILE RADIO POWER CONTROL
DEVICE USING THE COMPARISON OF
RETRANSMITTED DATA**5,457,808 10/1995 Osawa 458/69
5,533,095 7/1996 Kikuchi 379/57**[75] Inventor: Anthony Peter Hulbert, Shirley,
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Hampshire, England****[21] Appl. No.: 514,006****[22] Filed: Aug. 11, 1995****[30] Foreign Application Priority Data**

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[51] Int. Cl.⁶ H04B 7/00**[52] U.S. Cl. 455/69; 455/504****[58] Field of Search 455/126, 127,
455/68, 69, 13.4, 38.3, 52.1, 504; 375/297****[56] References Cited****U.S. PATENT DOCUMENTS**

5,128,965 7/1992 Henniksson 455/69

FOREIGN PATENT DOCUMENTS0 115 139 A2 8/1984 European Pat. Off. .
0 538 870 A2 4/1993 European Pat. Off. .
2 268 365 A 1/1994 United Kingdom .*Primary Examiner*—Edward F. Urban*Attorney, Agent, or Firm*—Hill, Steadman & Simpson**[57] ABSTRACT**

A power controller apparatus for use in a mobile radio system wherein, when an error is detected in a transmitted signal, the transmit power is increased and when no error is detected, the transmit power is reduced by a smaller amount thus maintaining a constant bit error rate related to the ratio of the up and down step sizes. The power controller also contains a comparator for comparing the data which is transmitted with the data which has been transmitted to a station and retransmitted back.

4 Claims, 1 Drawing Sheet